DOCKET NO.: BELL-0257/02382 PATENT

Application No.: 10/699,294

Preliminary Amendment - First Action Not Yet Received

Amendments to the Specification:

Please make the following changes to the Specification:

1. Paragraph 0005 should read as follows:

[0005] Currently, there are several home networking solutions available to consumers. Wired home-networking technologies were the first introduced solutions. These early networks, however, are bulky, largely point-to-point loop - or star-based systems. For the most part, such systems are tethered systems limiting the mobility and flexibility of their users. Such system is depicted, in part, in Figure 1. As shown in Figure 1, a twisted ecoperpair copper pair (e.g. Ethernet) network is established using router/switch 142. The router/switch 142 is physically connected to a first computer 146 148 and a second computer 144. In operation, the router switch acts to route data between the computers and/or that originates from a third source such as the Internet 102. In Internet context, the router/switch 142 cooperates with some broadband modem 120 to switch data packets to and from cooperating Internet computers. Generally, copper-pair or coaxial-based transport systems are bi-directional and typically have a high degree of reliability. They require the use of Category 5 (CAT5) or bulky coaxial cabling, and are typically expensive to install between rooms after a house has been built. Some home networks have Ethernet cabling, but because of its expense and difficulty to install, few have chosen to use it.

2. Paragraph 0025 should read as follows:

[0025] Also shown in Figure 1, is the delivery of power services to house 104. Alternating current power is delivered from utilities (not shown) through power transmission lines and poles 140 to electrical panel 138. From electrical panel 138, power is distributed throughout house 104 using electrical wiring 128 to electrical receptacles 134. Electrical wiring 128 may serve as an alternate network topology. As is shown an Internet connection may be established using the electrical wiring 128 of house 104. In this context data is communicated to and from the Internet through either of the telephony networks or the cable/satellite providers to the telephony or broadband modems, respectively. The data is

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then communicated through <u>a power data translator 152 (not shown)</u> for communication along electrical lines 128 to a cooperating personal computer 154. In this context, for <u>a cooperating personal computer 154</u> to realize its connection to Internet 102, it should be equipped with power-data translation capabilities.

3. Paragraph 0029 should read as follows:

[0029] As such, network topology and bandwidth management device 242 acts as a gateway for all of the network topologies found in the home. Using either of, and/or a combination of, network topology and bandwidth management device 242 accepts data and voice inputs from telephone service providers, cable/satellite providers for communication along one of the existing telephone wiring 226 222, electrical wiring 228, wireless communication (not shown), or coaxial wiring (not shown) to create a communications network. Data inputted into the network topology and bandwidth management device 242 is switched and routed according to any one or more of these network topologies for delivery to cooperating devices such as telephones and computers. The network topology and bandwidth management device 242, thus, acts as a single point of entry for various data and voice services for communication to cooperating devices using existing house wiring. Moreover, network topology and bandwidth management device 242, when operated, acts to manage the bandwidth allocations across the house networks such that data is efficiently communicated to the cooperating termination devices.

4. Paragraph 0034 should read as follows:

[0034] Figure 5 shows a block functional diagram of the various components of a network topology and bandwidth management device. As is shown, network topology and bandwidth management device 500 comprises all the various physical ports described in Figures 3 and 4. Notably, the option of managing ADSL frequencies as described in Figure 4 is included in this Figure. Within network topology and bandwidth management device 500 there comprises Frequency DeMux 508, Frequency Crossbar 502, HPNA transceivers 504 514 and Data Switch 508 532.

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5. Paragraph 0038 should read as follows:

[0038] Data Switch 508 532 connects Ethernets 509 & 511, COAX 512, Wireless 516, Power 510 and various HPNA 520-530 ports. Data Switch 508 532 can optionally comprise VLAN logic that would allow multiple logical data networks to be created within the physical network topology. It is understood that various embodiments of the network topology and bandwidth management device might have differing numbers of Ethernet, COAX, and Wireless ports - for example to enhance the optional VLAN capability or to provide greater physical data throughput.